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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,864	12/10/2003	Yasunori Ohto	246398US6	6752

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EXAMINER

PORTIS, SHANTELL L

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/731,864	Applicant(s) OHTO ET AL.	
	Examiner Shantell Portis	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Phillips et al (Phillips), U.S. Patent No. 6,459,894.

Regarding Claim 1, Phillips discloses a communication system comprising: mobile terminals (portable communication units 104, Col.2, lines 30-34); connection servers (fixed communication stations 102, Col. 2, lines 30-34), each including acquiring means for acquiring location information concerning the location of the connection server and inherently having a cell (Col. 2, line 62-Col. 3, line 17); and control servers (controller 204), each including inherently updating means for updating network information based on the location information as evidenced by the fact that the system keeps track of traffic loads and location information (Col. 3, line 53-Col. 4, line 7), wherein each of the connection servers connects to some of the mobile terminals within the cell to transfer data between the mobile terminals via the connection servers or the control servers (Col. 4, lines 30-37).

Regarding Claim 2, Phillips discloses the communication system according to claim 1, wherein the updating means updates connections among a connection server

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and neighboring connection servers based on the cell states (traffic load) of the neighboring connection servers (Col. 4, lines 30-50).

Regarding Claim 5, Phillips discloses the communication system according to claim 1, wherein each control server further comprising load-sharing means for monitoring the processing capability of each connection server and for controlling load sharing depending on the geographic location of each connection server as evidenced by the fact that the processor keeps track of traffic loads (Col. 3, line 53-Col. 4, line 7).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Crosbie, U.S. Pub. No. 2002/0085719 A1.

Regarding Claim 3, Phillips discloses the communication system according to claim 2 as described above.

Phillips fails to disclose wherein the connection server is a newly installed server. Phillips does mention that the server installations are needed in an effort to handle increased traffic (Col. 1, lines 13-24). Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to implement newly installed servers to ensure that the system does not overload.

Phillips further fails to disclose wherein the updating means selects a connection server neighboring to the new server, identifies at least one cell affected by the new server, and changes connections among the connection server and neighboring connection servers depending on the distances among the connection server and the neighboring connection servers.

In a similar field of endeavor, Crosbie discloses a method and system for enabling centralized control of wireless local area networks. Crosbie further discloses wherein the updating means selects a connection server neighboring to the new server, identifies at least one cell affected by the new server, and changes connections among the connection server and neighboring connection servers depending on the distances among the connection server and the neighboring connection servers, which reads on a mobile station moving from one location serviced by an access point to another nearby location area serviced by a different access point (paragraph 0038).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to select a connection server depending on the distances among the connection server and the neighboring connection servers in order to provide an improved quality of service for the mobile device (Crosbie, paragraph 0038).

Regarding Claim 4, Phillips discloses the communication system according to claim 1 as described above.

However, Phillips fails to disclose each connection server further comprising content-transmission managing means for switching a connection server being communicating with a mobile terminal to another connection server with which the

mobile terminal will communicate, as the mobile terminal moves from one cell to another.

Crosbie discloses each connection server further comprising content-transmission managing means for switching a connection server being communicating with a mobile terminal to another connection server with which the mobile terminal will communicate, as the mobile terminal moves from one cell to another (seamless handoff) (paragraph 0019).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Phillips according to Crosbie with a seamless handoff in order to prevent the loss of connection and/or interruption of communication (Crosbie, paragraph 0019).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Bahl et al. (Bahl), U.S. Patent No. 6,385,454 B1.

Regarding Claim 6, Phillips discloses the communication system according to claim 5 as described above.

However, Phillips fails to disclose wherein the load-sharing means controls load sharing based on estimated movements of the mobile terminals.

In a similar field of endeavor, Bahl discloses an apparatus and method for management of resources in cellular networks. Bahl further discloses wherein the load-sharing means controls load sharing based on estimated movements (prediction of the mobile's future movements) of the mobile terminals (Col. 4, lines 45-65).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Phillips according to Bahl so that hand-offs to the mobile unit from one base station to another is accomplished efficiently and with minimal degradation of the quality of the communications link and further by reserving bandwidth, the network substantially decreases the chances that the connection between the mobile unit and the network will be dropped in an attempted hand-off.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jokiaho et al., U.S. Patent No. 5,889,770 discloses a location updating for a packet-switched data service in a mobile communication system.

Huusko et al., U.S. Patent No. 6,397,065 discloses a cellular radio access network and location updating in a cordless communications system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantell Portis whose telephone number is 571-272-0886. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slp

Slp

September 1, 2005

Erika A. Gary
ERIK A. GARY
PRIMARY EXAMINER